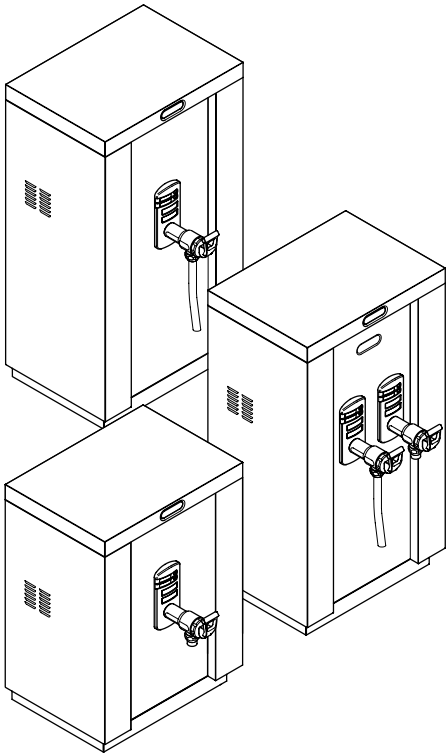
calomax

MODEL: KUDOS
KUDOS 3
KUDOS 3 D/F

INSTALLATION, OPERATION AND SERVICING INSTRUCTIONS



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Please read these instructions carefully before operating your boiler for the first time

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INTRODUCTION

Thank you for purchasing a Calomax Kudos range boiler. All our products are designed to give years of simple, reliable operation. To ensure this, it is important that the installation and subsequent servicing is carried out by a suitably qualified engineer in accordance with these instructions.

For assistance in finding a suitable engineer in your area, visit our website www.calomax.co.uk, contact our service department on 0113 249 6681 or e-mail: service@calomax.co.uk

CHECK LIST

Before commencing installation, check that the following parts have been supplied with the boiler:

1. WRAS approved flexible water inlet hose suitable for potable water.
2. Status label

APPROVALS

This product conforms to the CE marking directive 93/68/EEC through compliance with the following standards:

Electromagnetic Compatibility Directive
Low Voltage Directive 73/23/EEC in accordance with:

Approved

BS EN 60335-2-63:1993

Compliance with these standards has been confirmed through testing by an independent NAMAS approved body

Calomax products have been tested and found to comply with the requirements of the Water Supply (Water Fittings) Regulations 1999 for England and Wales Water Bylaws 2000, Scotland and the Water Regulations Ireland.

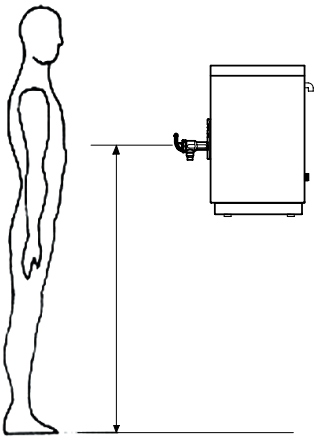
CONSTRUCTION

All metalic components of the machine, in direct contact with drinking water are manufactured from high quality 304 grade stainless steel, or non ferrous materials, providing maximum resistance to corrosion.

INSTALLATION

LOCATION

The boiler must be installed in a location where access is restricted to operators that are suitably trained, or where untrained operators of the machine can be supervised by trained personnel.



To comply with recommendations from the health and safety executive it is important that due consideration be given to safe operation of the controls of the boiler. The boiler should therefore be mounted in such a manner that the operator can stand directly facing the machine with the controls at a recommended height from the floor to the draw-off tap handle of 1200mm +/- 100mm. Consideration should also be given to the servicing requirements of the machine. The maximum and minimum ambient operating conditions must be between 5 °C and 35 °C. The appliance is not suitable for installation where a water jet could be used. Install the boiler on a surface suitable for near boiling temperatures and the working weight of the boiler. Allow adequate clearance for ventiation and for the easy removal of the outer casing lid and left hand side panel panel. Calomax ltd recommend a minimum clearance of 50mm on all sides of the boiler except the left hand side which requires minimum fo 150 mm clearance for maintenance. A suitably

COLD WATER INLET

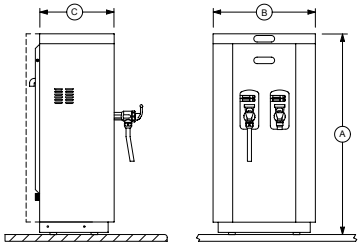
qualified engineer must install this unit. Plumbing and electrical installation work is involved.

To comply with the U.K. Water Supply Regulation a single check-valve must be fitted to the supply. BEFORE CONNECTING, THE SUPPLY PIPE MUST BE THOROUGHLY FLUSHED OUT TO ENSURE THAT FOREIGN MATTER DOES NOT BLOCK OR ENTER THE SOLENOID VALVE

The boiler must be connected to a potable water supply using the food grade hose provided, in a manner which complies with UK water regulations. The hose should be connected to a ½" (15mm) drinking water supply via an appropriate isolating valve. The supply must provide a constant pressure of between 20 KPa and 1000 KPa (0.2 to 10 Bar).

If the water supply contains excessive solids in suspension it is recommended that a fine mesh "in line" water filter is fitted in the pipe work. Failures due to scale and sediment are not covered by the warranty.

DIMENSIONS AND WEIGHTS



MODEL		A	B	C	DRY WEIGHT	WORKING WEIGHT
KUDOS	mm	535	380	275	13 Kg	30 Kg
KUDOS 3	mm	745	380	275	21 Kg	48 Kg
KUDOS 3 DUAL FLOW	mm	745	380	275	21 Kg	48 Kg

ALL DIMENSIONS ARE APPROXIMATE

VENT & OVERFLOW

The vent / overflow pipe must be extended and laid with a ***continuous fall***, discharging to a safe and visible point. The pipe should not be directly connected to a closed waste, as taste problems may occur and should never be allowed to become blocked or restricted.15mm copper or 'Speedfit' pipe should be used. If the machine is operated without the overfill pipe being extended as advised, any subsequent damage incurred will be the responsibility of the installer.

ELECTRICAL CONNECTIONS

The boiler is supplied with a fitted plug and lead and should be plugged into a 240v 13A electrical socket, capable of carrying a load of 3kW. The installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable.

USER INSTRUCTIONS

During normal operation some external parts will become very hot, particularly the tap body. Care must be taken to avoid injury, a burn or scald.

Commissioning

Turn on the water supply and then switch on the electrical supply. The Wait/Ready light will flash yellow and the unit will pulse with water (8L/Min). When water reaches the normal operating level sensor, the solenoid will be disabled and the element will be energised. When a band of water around the draw off tap has reached the normal operating temperature, the Wait/ Ready light will show solid yellow colour (indicating water available). The element will remain energised until the full capacity of the boiler has reached normal operating temperature, indicated by the wait/ready light turning to solid orange colour

Subsequent Use

After the boiler has finished the commissioning cycle and water is drawn from the tap, water will be replaced in pulses automatically by

the solenoid. The element may be also be energized at the same time. If water is drawn from the machine but boiling water is still available,the Wait/Ready light will be illuminated solid yellow. if full draw off capacity is removed, the boiler will chill, indicated by the Wait/Ready light flashing yellow.

Note:

When the green service indicator light on the front of the boiler is showing solid colour, the header tank sensor has been starved of water for in excess of 30 seconds and the bottom thermistor has been disabled. To reinstate normal operation the water supply needs to be re-applied.

If the service indicator light flashes, this indicates that the water level has reached the high level sensor and the likelihood is that the normal level sensor requires de-scaling, or the machine has over-filled due to debris trapped in the solenoid valve.The debris can be removed by drawing plenty of water from the dispense tap, causing the solenoid valve to operate and flush out the obstruction. The machine will reset itself once the problem has cleared. If this does not rectify the problem, turn off the water supply and remove the flexible hose to check for debris in the valve's filter. When the service light is flashing, the element is disabled and the boiler may cool. For further assistance, contact our service department on 0113 249 6681 or e-mail service@calomax.co.uk.

SCALE

The production of scale is a natural phenomenon and commonly occurs in hot water systems. The nature of the scale produced and its rate of formation varies widely throughout the country.

To ensure continuous, reliable operation, the boiler should be regularly de-scaled by a suitably qualified engineer. Suitable chemical de-scalants must only be used if the manufacturers recommendations are strictly adhered to. This is to prevent health and safety issues, taste problems and potential damage to the appliance. Misuse of such chemicals is not covered by the product warranty.

The Kudos range of boilers benefit from an integral scale inhibitor. **This is not** a scale eliminator and its effects will differ according to the water quality in your area. To ensure trouble free operation, periodically check for scale inside the boiling chamber. The production of scale is a natural phenomenon and some de-scaling may be required within the first 12 months. This is not covered under the products warranty as it is not a fault.

GENERAL OPERATION

- Hold a cup below the tap or place large vessels on the drip tray. Care must be taken to avoid injury through splashing or over-filling.

- To begin filling, pull the handle forward or push it backward – hot water begins to flow. If the tap is opened fully it can be locked open (for filling large vessels) in this state the boiler must never be left unattended.

- To stop filling, release the handle so it returns to the closed position. THE KUDOS3 AND KUDOS3/DF BOILERS ARE FITTED WITH AN EXTENDED NOZZLE AS STANDARD, DESIGNED FOR FILLING LARGE VESSELS. DUE TO THIS, WATER WILL CONTINUE TO FLOW FOR SEVERAL SECONDS AFTER THE TAP HAS BEEN CLOSED NEVER PASS YOUR HAND BENEATH THE NOZZLE.

GENERAL NOTES

- Please retain these instructions for future reference

- Ensure that a suitable drip tray is positioned below the tap nozzle. This will help keep the surrounding work surfaces and floor free from drips or splashes. Various options are available and are outlined on the Accessories page of this booklet (page 9).

- All de-scaling and servicing must be performed by a suitably qualified engineer.

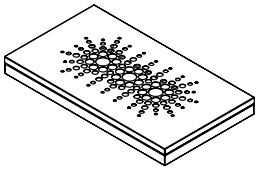
CLEANING

Avoid using any abrasive materials. Wiping the outer casing with a damp cloth should be sufficient. Some stainless steel cleaning products may not be suitable for plastic and must not come in contact with the plastic fascia. Always disconnect the electrical supply before cleaning.

NEVER USE A SPRAY JET OR ANY OTHER METHOD WHICH COULD CAUSE WATER TO ENTER THE ELECTRICAL CHAMBER.

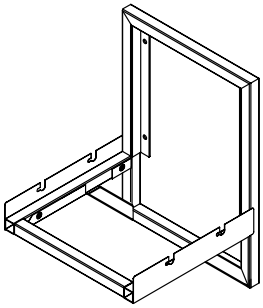
Accessories

(To suit all Kudos models unless stated otherwise)



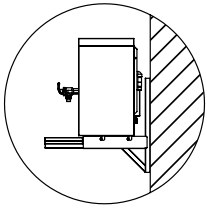
Worktop-mounting Stainless Steel drip tray

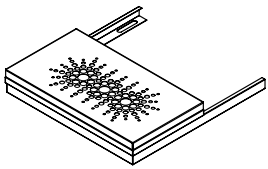
Ref. SSDTK (freestanding)
SSDTWDK (with drain outlet)



Wall-mounting bracket (for boiler)

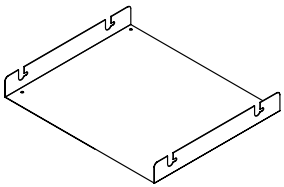
Ref. KWMBK





Stainless Steel drip tray for Wall-mounting bracket (above)

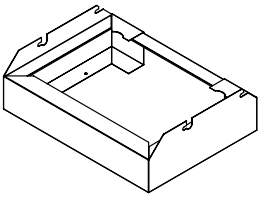
Ref. KWMBDTK (free standing)
KWMBDTWDK (with drain outlet)



Boiler securing clamp

(To fix boiler to a worktop)

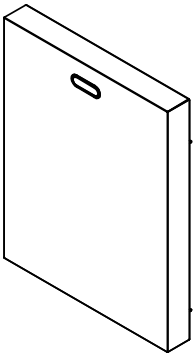
Ref. KC14MM



Boiler Stand (To increase height of shorter, Kudos model only - not suitable for taller models)

Ref. KS##

(Where ## denotes ***additional*** clearance between worktop and tap nozzle)

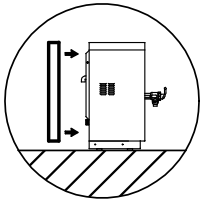


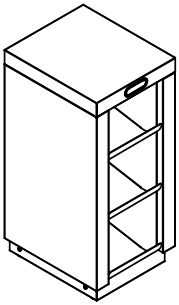
Back panels

(To conceal water & electrical connections)

Ref. KWBAC (for Kudos)

K9BAC (for Kudos3 & Kudos3 Dual Flow,)

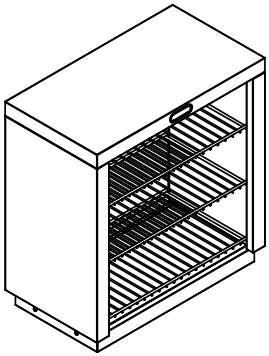




Ingredient caddy

Ref. IC3 (3 bay) - *as shown*

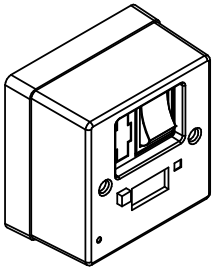
IC4 (4 bay)



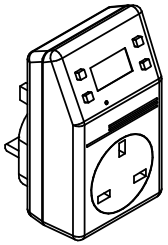
Shelf unit

(For storing cups / saucers etc.)

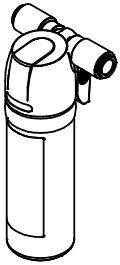
Ref. SHU



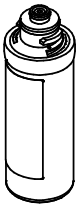
Fused spur time switch
Ref. 7DFST
(Max 3kW)



Plug-in time switch
Ref. 7DPIT
(Max 3kW)



Water filter kit
(To reduce taste & odour problems)
Ref. CWFK



Filter Cartridge
(Replacement filter for kit shown above)
Ref. CWFC1

SERVICE INSTRUCTIONS

When the green service indicator light on the front of the boiler is showing solid colour, the header tank sensor has been starved of water for in excess of 30 seconds and the bottom thermistor has been disabled. To reinstate normal operation the water supply needs to be re-applied.

If the service indicator light flashes, this indicates that the water level has reached the high level sensor and the likelihood is that the normal level sensor requires de-scaling, or the machine has over-filled due to debris trapped in the solenoid valve.The debris can be removed by drawing plenty of water from the dispense tap, causing the solenoid valve to operate and flush out the obstruction. The machine will reset itself once the problem has cleared. If this does not rectify the problem, turn off the water supply and remove the flexible hose to check for debris in the valve's filter. When the service light is flashing, the element is dissabled and the boiler may cool. For further assistance, contact our service department on 0113 249 6681, e-mail service@calomax.co.uk. or find a local service engineer at www.calomax.co.uk

Access to internal components can be gained by the removal of the outer casing lid and left hand side panel. Once the outer casing is removed, access to the Service Area has been gained. This access must be restricted to persons having knowledge and practical experience of the appliance, in particular as far as safety and hygiene are concerned.

De-scale

To gain access to internal components, the body lid must be removed. Break the lid gasket seal and lift it clear of the body.

Note: Whenever the body lid has been removed from the boiler a new lid gasket may be required to ensure a steam-tight joint. Damage to the unit caused by a poor lid seal is not covered by warranty.

Scale deposits should be removed from all internal surfaces, particularly the heating element, thermistors and level sensors by gently tapping or scraping. If the deposits are soft, use a nylon pad and flush out. Abrasive cleaning materials containing scouring powders and detergents must not be used, such materials can cause taste problems.

Suitable chemical de-scalants must only be used in accordance with the manufacturers recommendations. This will prevent health and safety issues, taste problems and potential damage to the appliance. All trace of these chemicals must be removed before re-commissioning the unit. Misuse of such chemicals is not covered by the product warranty.

IMPORTANT Before re-commissioning the boiler it is important that all scale and moisture is removed from the level sensors and insulating gaskets, to avoid a false signal being transmitted through the scale to the boiler body. Failure to remove this scale and/or moisture could cause the sensor to indicate to the PCB that water is covering the element, whether or not water is present. In this situation the PCB could energise the element causing failure. If in doubt, protect the element by hand filling with water to the level of the draw-off tap before switching on the electrical supply to the boiler.

General function

The printed circuit board (PCB) controls the heating and filling functions of the boiler by monitoring the thermistors and level sensors. The PCB also controls the external light unit to indicate the current state of the boiler. Red and yellow LED'S on the circuit board indicate whether the PCB has energised the element or solenoid respectively.

Should an element fail and need to be replaced, it may be necessary to replace the lid gasket to ensure a reliable steam-tight seal. **Note: the element has a permanent 'Live' feed, and the 'Neutral' is switched.**

Printed Circuit Board replacement (PCB)

In the event of a PCB failing and a replacement being required, full instructions will be supplied. It is important to note however, that the Triac PCB must be securely mounted against the copper heat-sink to ensure reliable heat dissipation. Heat transfer compound is also supplied with all replacement circuit boards.

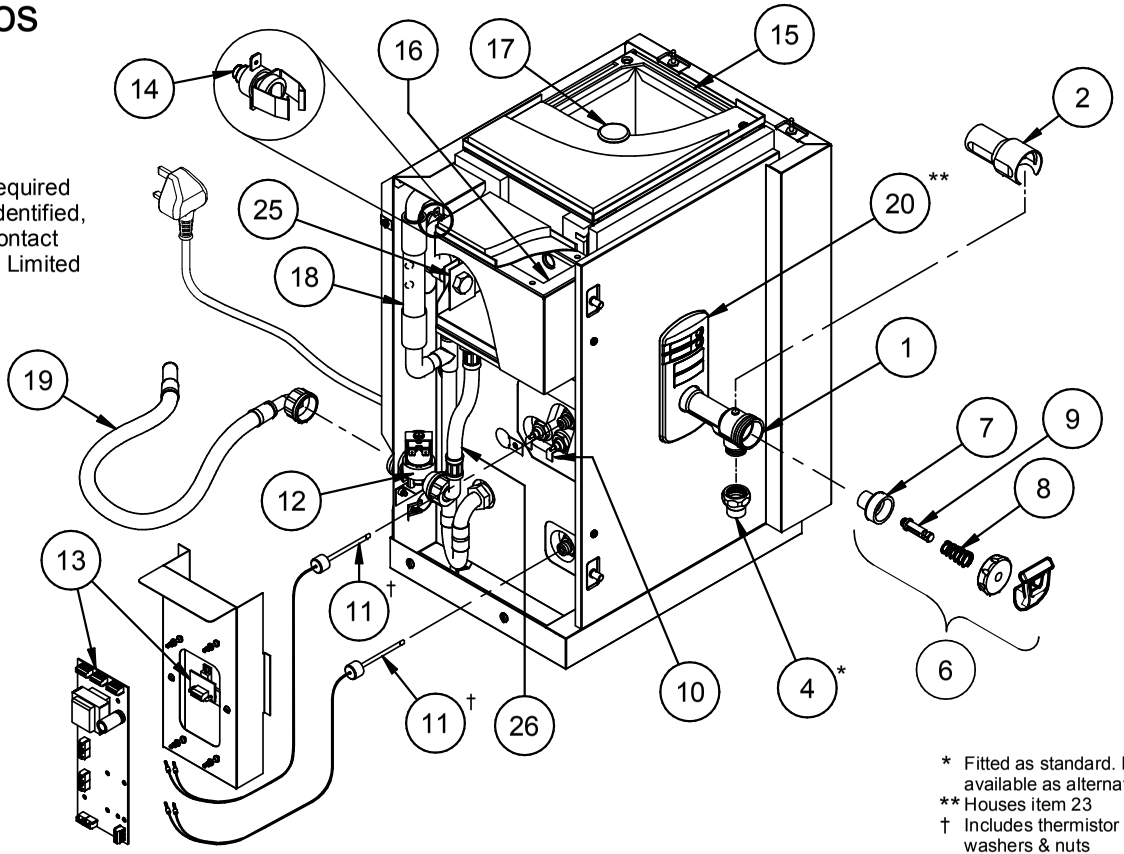
Adjusting the Water Temperature Set Point

The temperature potentiometer (Pot) is pre-set at Calomax and will only require adjustment in exceptional circumstances. Contact Calomax for advice.

Water boils at different temperatures depending on barometric pressure. The temperature should not be tuned higher than 98°C, or over boiling may occur during low barometric pressure conditions, causing the unit to trip the overheat cut-out device.

Exploded parts view (To be read in conjunction with the spare parts list)
Kudos

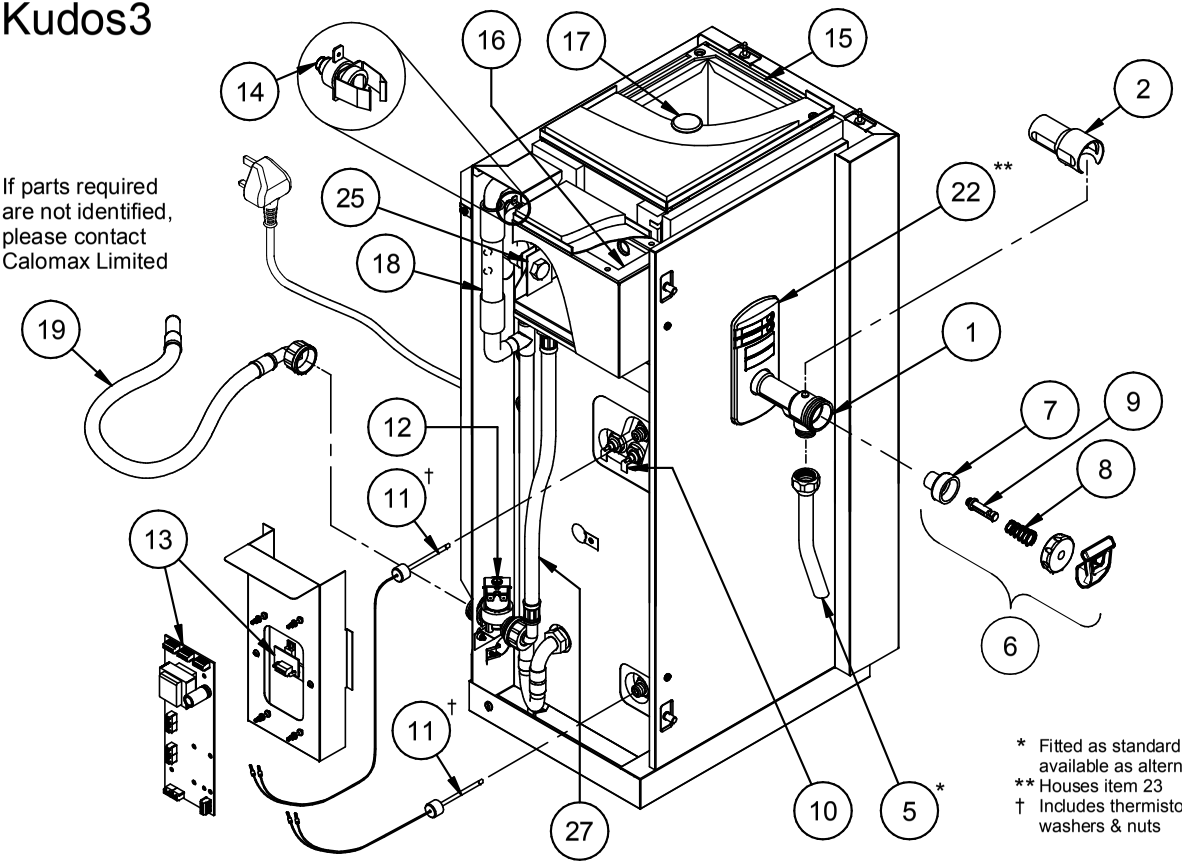
If parts required are not identified, please contact Calomax Limited



* Fitted as standard. Item 3 available as alternative
** Houses item 23
† Includes thermistor pocket, all washers & nuts

Exploded parts view (To be read in conjunction with the spare parts list)
Kudos3

If parts required are not identified, please contact Calomax Limited

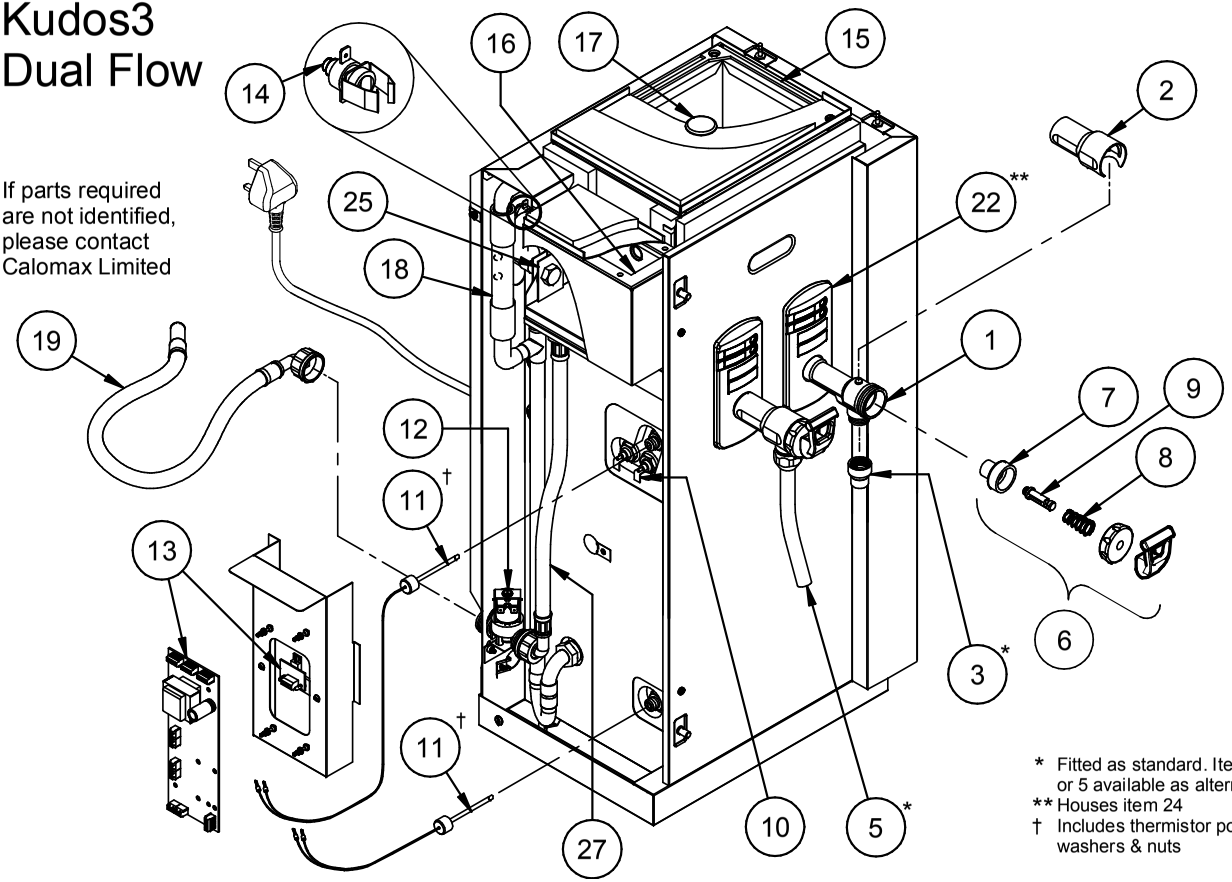


* Fitted as standard. Items 3 or 4 available as alternatives
** Houses item 23
† Includes thermistor pocket, all washers & nuts

Exploded parts view (To be read in conjunction with the spare parts list)

Kudos3
Dual Flow

If parts required are not identified, please contact Calomax Limited



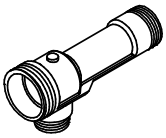
* Fitted as standard. Items 3, 4 or 5 available as alternatives

** Houses item 24

† Includes thermistor pocket, all washers & nuts

Spare parts are usually available ex-stock.
Please quote Model & Serial Number.

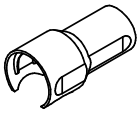
1



TBT

DRAW OFF TAP BODY

2



UTHS

TAP BODY HEAT SHIELD

3

TN2CK

SLOW-FILL NOZZLE

4

TN3CK

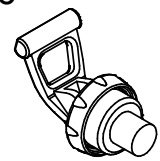
FAST-FILL NOZZLE

5

KNK

EXTENDED FAST-FILL NOZZLE

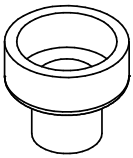
6



KTT

TAP TOP ASSEMBLY

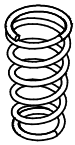
7



CBTCW

TAP CUP WASHER

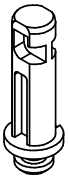
8



CBTS

TAP SPRING

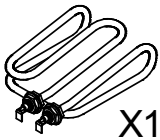
9



CBTSS

TAP SLOTTED STEM

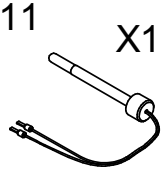
10



NBE3HK

3kW ELEMENT

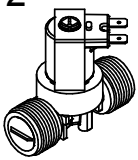
11



TAKE

THERMISTOR ASSEMBLY KIT

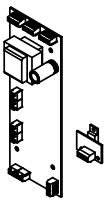
12



KSV

SOLENOID VALVE

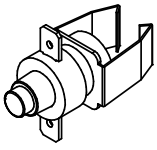
13



K3PCBT

PRINTED CIRCUIT BOARD-3kW Inc.TRIAC

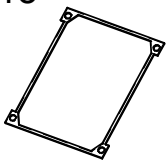
14



KUDTC

MANUAL RESET THERMAL CUTOUT

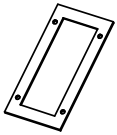
15



NB15BLG

BODY LID GASKET

16

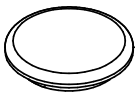


KWTLG

WATER TANK GASKET

Spare parts are usually available ex-stock.
Please quote Model & Serial Number.

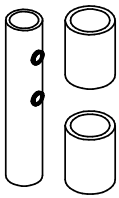
17



NBPRG

BODY LID GROMMET

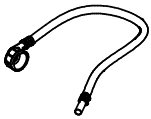
18



KWLCPK

WATER LEVEL CONTROL PIPE

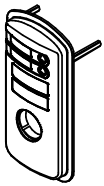
19



WIH (1m)

WATER INLET HOSE

20



KPMFK

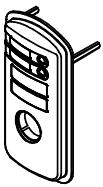
PLASTIC FASCIA FOR KUDOS

21

FIH (1m)
IH2M (2m)

WATER INLET HOSE

22



KDFPMFK

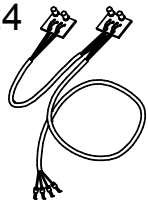
PLASTIC FASCIA FOR DUAL FLOW BOILERS

23

CASLPCBA

LIGHT PCB FOR KUDOS & KUDOS3

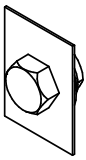
24



KDFLPCBA

LIGHT PCB FOR DUAL FLOW BOILERS

25



KTSK

TANK SENSOR KIT

26

KUDIHA

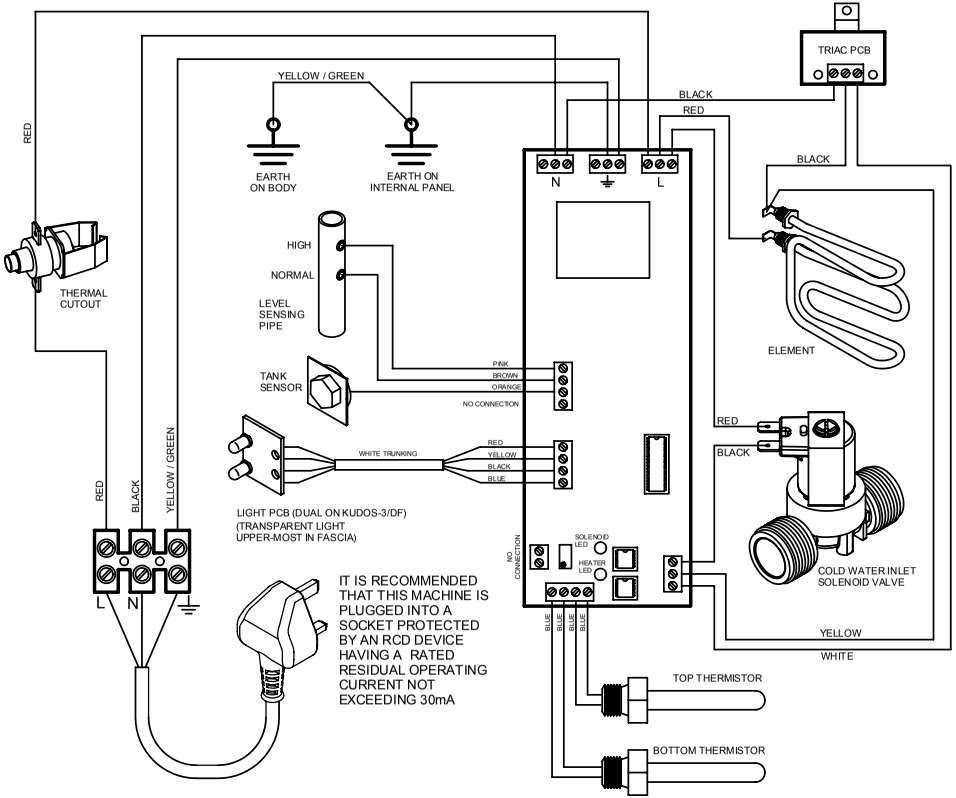
INTERNAL HOSE ASSEMBLY (KUDOS)

27

KUDIHB

INTERNAL HOSE ASSEMBLY (K3 & K3/DF)

Wiring Schematic to suit Kudos, Kudos-3 & Kudos-3/DF Water Boilers



BASIC TROUBLE SHOOTING

Symptoms	Possible Cause	Remedy
No boiling water available	Broken tap top	Replace tap top (or component)
	Normal level sensor holding signal	De-scale
	Thermal cut-out tripped (no light)	Reset and check for faults
	Element failed	Replace element
Thermal cut-out trips regularly	Excessive internal scale. (See 'De-Scale' page 12)	De-scale the boiler (Particularly thermistors)
	Faulty wiring to thermistors / faulty thermistors	Repair / replace as required
	Temperature controller needs adjusting	Lower operating temperature
	Element failed to earth	Replace element
	Defective Printed Circuit Board	Replace Circuit Board
Overflows	Dirt in solenoid valve.	Clean solenoid filter / or replace solenoid, "work the boiler" -see Service Instructions (page 12).
	Level sensors require de-scaling or replacing	De-scale / replace sensors
	Printed circuit board faulty	Replace P.C.B

SERVICE HISTORY AND NOTES

WARRANTY GUARANTEE (UK Mainland customers only)

Calomax have manufactured water boilers in the UK for over 50 years. We are proud of our products and the back-up service we provide

Properly maintained and serviced, a Calomax boiler should last many years and we have no hesitation in providing a full 12 months (mainland U.K.) parts and labour warranty for all models. Please complete and return the enclosed product registration form as soon as possible to activate this, or register online at www.calomax.co.uk .

In addition, the Clipper, Kudos and Quantum models carry an additional 12 month back to base warranty.

Some factors are beyond our control and would invalidate the warranty offered. These include:

- Incorrect installation
- High / Low water pressure
- Incorrect voltage supply
- Accidental damage
- Limescale build-up

The last item can be a particular problem for water dispensing equipment in hard-water areas. All hot water equipment should be serviced and de-scaled by approved organisations on a regular basis to avoid a damaging build-up of limescale.

Although our boilers incorporate scale-inhibitor technology, we recommend that a taste, odour and scale filter should be fitted where appropriate.

Please visit our website www.calomax.co.uk for details of our Service Partner Network and the range of filters and accessories available

PLEASE ENTER MODEL & SERIAL NUMBER FOR FUTURE REFERENCE

Model	
Serial Number	
Draw off Capacity Kudos Kudos3 Kudos3 D/F	12 Litres 22 Litres 22 Litres
Heat-up Time (First fill to full capacity) Kudos Kudos 3 & kudos3 D/F	 36 Minutes 51 Minutes
Average flow from tap **Kudos** Fast flow nozzle Slow flow nozzle	 4.8 Litres / minute 3 Litres / minute
Average flow from tap **Kudos 3 & K3/DF** Extended nozzle Fast flow nozzle Slow flow nozzle	 8.5 Litres / minute 6 Litres / minute 3.5 Litres / minute
Voltage	220 - 240 V ac 50-60 Hz
Power rating	3kW (MAX)

Note: All measurements are approximate.

PLEASE CONTACT OUR SERVICE DEPARTMENT FOR ASSISTANCE

Calomax Limited, Lupton Avenue, Leeds LS9 7DD
Tel: 0113 249 6681
Fax: 0113 235 0358
e-mail: service@calomax.co.uk